

obtaining the channel estimates of the data symbols by calculating a weighted sum of averages of the pilot symbols in the individual pilot blocks,

wherein a magnitude of weighting differs between at least two data symbols in each slot, and when obtaining the channel estimates of the data symbols in an  $n$ th slot in the combined symbol sequence, where  $n$  is an integer, the pilot blocks are generated from  $(n-K+1)$ th slot to  $(n+k)$ th slot in the combined symbol sequence, where  $K$  is a natural number."

**IN THE CLAIMS:**

Please amend claims 1 and 6-12, and add new claims 15 and 16. No new matter is believed to be introduced by such amendments and new claims.

1. (Amended) A channel estimation unit for obtaining channel estimates of data symbols from pilot symbols in a combined symbol sequence which has a plurality of slots and includes the data symbols and the pilot symbols, said channel estimation unit comprising:

means for locating the pilot symbols in the combined symbol sequence;

means for generating pilot blocks by extracting the pilot symbols from two or more slots in the combined symbol sequence in accordance with a located result;

means for obtaining the channel estimates of the data symbols by calculating a weighted sum of averages of the pilot symbols in the individual pilot blocks,

wherein a magnitude of weighting differs between at least two data symbols in each slot and the power of the data symbols and pilot symbols is controlled on a slot by slot basis.

6. <sup>TWICE</sup>  
(Amended) The CDMA transceiver as claimed in claim 3, wherein said receiving processor further comprises means for extracting, from the data symbol sequence compensated for, the power control symbol sequence for controlling power of the data symbols and pilot symbols, and said means for transmitting the spread combined symbol sequence transmits the spread combined symbol sequence in accordance with the power control symbol sequence.

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Cont.  
7. <sup>TWICE</sup>  
(Amended) The equipment as claimed in any one of claims 2, 3, <sup>or</sup> ~~and~~ 15, wherein the power of the data symbols and pilot symbols is controlled on a slot by slot basis.

8. <sup>TWICE</sup>  
(Amended) The equipment as claimed in any one of claims 1-3, <sup>or</sup> ~~and~~ 15, wherein the number of data symbols included in each slot of the combined symbol sequence is the same, and the number of pilot symbols included in each slot of the combined symbol sequence is the same.

9. <sup>TWICE</sup>  
(Amended) The equipment as claimed in any one of claims 1-3, <sup>or</sup> ~~and~~ 15, wherein the pilot blocks each consist of all the pilot symbols in each slot.

10. <sup>TWICE</sup>  
(Amended) The equipment as claimed in any one of claims 1-3, wherein when obtaining the channel estimates of the data symbols in an nth slot in the combined symbol sequence, where n is an integer, the pilot blocks are generated from (n-K+1)th slot to (n+K)th slot in the combined symbol sequence, where K is a natural number.

TWICE

11. (Amended) The equipment as claimed in any one of claims 1-3 <sup>or</sup> ~~and~~ 15,

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Cancel - wherein the pilot blocks closer to the data symbol with which the channel estimate is to be obtained have greater weight.

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12. (Amended) A channel estimation method of obtaining channel estimates of data symbols from pilot symbols in a combined symbol sequence which has a plurality of slots and includes the data symbols and the pilot symbols, said channel estimation method comprising the steps of:

123 locating the pilot symbols in the combined symbol sequence;

generating pilot blocks by extracting the pilot symbols from two or more slots in the combined symbol sequence in accordance with a located result; and

obtaining the channel estimates of the data symbols by calculating a weighted sum of averages of the pilot symbols in the individual pilot blocks,

wherein a magnitude of weighting differs between at least two data symbols in each slot, and the power of the data symbols and pilot symbols is controlled on a slot by slot basis.

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15. (New) A channel estimation unit for obtaining channel estimates of data symbols from pilot symbols in a combined symbol sequence which has a plurality of slots and includes the data symbols and the pilot symbols, said channel estimation unit comprising:

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Cont. means for locating the pilot symbols in the combined symbol sequence;

means for generating pilot blocks by extracting the pilot symbols from two or more slots in the combined symbol sequence in accordance with a located result; and

means for obtaining the channel estimates of the data symbols by calculating a weighted sum of averages of the pilot symbols in the individual pilot blocks,

wherein a magnitude of weighting differs between at least two data symbols in each slot, and when obtaining the channel estimates of the data symbols in an  $n$ th slot in the combined symbol sequence, where  $n$  is an integer, the pilot blocks are generated from  $(n-K+1)$ th slot to  $(n+K)$ th slot in the combined symbol sequence, where  $K$  is a natural number.

16. (New) A channel estimation method of obtaining channel estimates of data symbols from pilot symbols in a combined symbol sequence which has a plurality of slots and includes the data symbols and the pilot symbols, said channel estimation method comprising the steps of:

locating the pilot symbols in the combined symbol sequence;  
generating pilot blocks by extracting the pilot symbols from two or more slots in the combined symbol sequence in accordance with a located result; and  
obtaining the channel estimates of the data symbols by calculating a weighted sum of averages of the pilot symbols in the individual pilot blocks, wherein a magnitude of weighting differs between at least two data symbols in each slot, and when obtaining the channel estimates of the data symbols in an  $n$ th slot in the combined symbol sequence, where  $n$  is an integer, the pilot blocks are generated from  $(n-K+1)$ th slot to  $(n+K)$ th slot in the combined symbol sequence, where  $K$  is a natural number.